

FINAL REVISION





INFORMATION
& COMMUNICATION
TECHNOLOGY





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طبقاً لأحدث مواصفات الورقة الامتحانية ٢٠٢٥ - ٢٠٥٥ للمدارس الرسمية والخاصة لغات

Part 1

An hour before the exam

تمكن من مراجعة منهجك فٮ ساعة واحدة قبل الامتحان

Part 2

5 Sample Tests

اختبارات على المنهج بالكامل



PART

1

An hour before the exam





An hour before the Exam

تمكن من مراجعة منهجك في ساعة واحدة قبل الامتحان



Important Points

أهم النقاط في المحور الأول

1 "What is the Internet of Things?"

- The Internet of Things (IOT) consists of devices linked to the internet via Wi-Fi.
- These devices can be controlled, whether you're in the same room or in another city!

2 "Networks and people of determination"

- They give people of determination more independence, both at home and in public.
- This independence helps them to save money and time.
- It also helps to increase confidence levels

3 "Fred Hiebert"

 Fred Hiebert uses Word and, Excel to prepare and show graphs and PowerPoint to make presentations and write reports.

4 "Following a process"

- Follow this troubleshooting process to help with computer problems.
 - (a) Identify the problem.
 - (b) Think about and plan different ways you might solve the problem.
 - (c) Go through your potential solutions to the problem.
 - (d) Which solution worked?
 - (e) If you do not find a solution to the problem. You should ask your teacher or a member of your family for help.

5 "Communicating with ICT tools"

 When sharing information online, you must decide which information should be shared using an intranet network or the internet.



Important Definitions

أهم التعريفات في المحور الأول

Word	Definition
Gateway	- It is a gateway to connect your computer to the internet It is a tool to connect the internet such as a router.
Internet Service Provider (ISP)	- It is the internet service provided by Egyptian companies to citizens.
Router	It connects your computer to an ISP.
The World Wide Web (WWW)	It's part of the internet networks made up of web pages that people can navigate.
The Egyptian Knowledge Bank (EKB)	It's on the (WWW) and it is available for free to all Egyptians who register on the site.
Intranet	Unlike the internet. It's private, restricted to only those that are part to the business, school, or organization that it is connecting.
Cable	A long connect or that transmits data or power between devices, such as ethernet cable.
Internet of things (IOT)	House hold items can be part of a network, too.
Bluetooth	Bluetooth is a networking technology that connects wireless mobile devices over a short range to form a network to transmit data between different devices.

Potential computer problems and solutions

مشكلات الكمبيوتر المحتملة وحلولها

Problem	Potential reasons	Solution
Trouble processing large files, like a big PowerPoint presentation	Not enough graphics storage	Shut down some programs
2. Not able to store files	Not enough space	Move old files to an external drive
3. A poor video-conference connection	Slow wireless internet connection	Try an ethernet connection
Home internet connection not working	Connection interrupted	Use ethernet or contact ISP

The main computer hardware components:



External Hard Drive:

• Like an HDD (Hard Disk Drive) but much faster



Ethernet cable:

 A cable that connects a computer or laptop to a router



Flash Memory:

 It is used to transfer or restore files and data between computer devices



Ethernet port:

 Connects an ethernet cable; ethernet is more stable and faster than Wi-Fi



HDMI (high-definition multimedia interface):

A cable that transmits audio and video from/to devices



Router:

 A device that connects a computer to the internet via Wi-Fi or ethernet

Units of measurements

bit	the smallest unit of data		
byte (B)	1 byte = 8 bits = 1 character; the word "cat" has three letters and would need three bytes.		
Kilobytes	1,024 (B)		
Megabyte (Mb)	1,024 (KB)		
Gigabyte (Gb)	1,024 (MB)		
Terabyte	1,024 (GB)		
Mbps	Megabits per second; measures the speed of a network or internet connection (the faster the speed, the better)		
GigaHertz (GHz)	measures the number of cycles your CPU carries out per second; (the higher the number, the faster the speed,the better).		

Types of computer Networks

1 Local Area Network (LAN)

▶ When a computer connected to another computer or device such as a printer or router then you have your own personal local area network.



▶ It could be at ♣ home, at ♣ school or in a ♣ hospita

2 Internet

▶ It is a network that connects computers, and the people using them, from all around the world.



Types of Networks divided into

Network	Description	Examples
open network	- It is opened. - It is accessible to all.	The Internet.
closed network	It may only have computers linked by cables to allow for file sharing.	School's computer lab.

Comparison between intranet and internet networks

intranet

- private
- closed computer network
- restricted

internet

share

information

 open computer network

accessible to all

▶ Ways that people can use networks to communicate :



send a text



buy something



take an online class



download or upload a video



use an app or program

▶ There are devices that can be turned on / off using specific apps:

Bluetooth speakers



Digital washing machine



Digital refrigerator



Home appliances

History of using the internet

80s dial-up internet connection

- 1. They used phone line to connect to internet
- 2. They couldn't use phone when on the internet
- 3. The connection was slow but stable



(late 80s Digital subscriber line (DSL

- 1. A high-speed connection
- **2.** It uses the same home phone wires to connect to the internet.
- **3.** It allows the phone and the internet to be used simultaneously.



90s

- Emergence of the World Wide Web (abbreviated to WWW)
- 2. It is a large set of web pages that are linked to each other using hyperlinks.



2000+

- Wi-Fi devices become popular.
- Now it can access internet from your smartphone portable internet service
- 3. Hotspots to allow you to access the internet anywhere on smartphone can help provide internet service to other devices you may have as well.



• Helping people who are visually impaired through.



Screen reader and Braille



- · do schoolwork online.
- read braille.
- · accessing documents.



E-commerce



- · shop and sell online.
- It makes life so much easier for everyone.



Digit Privacy



be safe about giving information online.

▶ Common computer problems and possible solutions :

Problem	Possible solutions
1. Computer slows down when opening an app	 ▶ Shut down and restart it. ▶ Check for software updates. ▶ Delete unwanted apps.
2. Browser running slow	▶ Check Wi-Fi signal.▶ Make sure to update the apps on your device.
3. No internet connection No internet Try: Checking the n Reconnecting Running Wind ERR_INTERNET_DISCON	ows Network Diar Pitestait goal Touter.
4. Slow to download	► Restart your computer and router. ► Check the internet speed.





School Library

The internet



TV programs

How save and store information?

We use the images scanner and save Scanner images for later use.



Digital camera

We can take photos and videos and store them.



Flash memory

We store and share information.



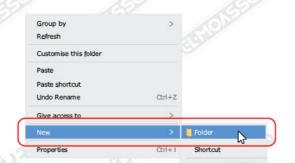
How to organize using ICT tools

Create the main folder

First right click

Second click (New)

click (Folder) Third



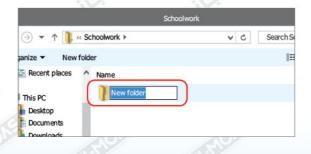
Add sub-folders

We can add sub-folders inside the main folder.

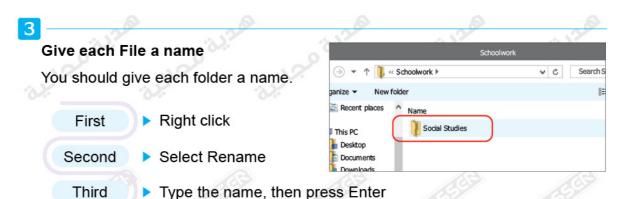
> Open the main folder First

Right click Second

Select New folder Third







Compare between intranet network and internet:

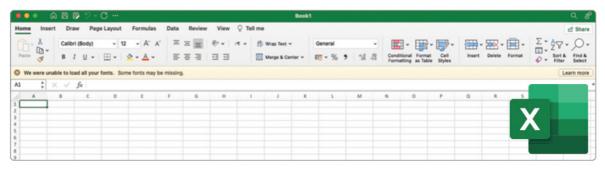
Intranet	Internet
- An intranet is used to share in a closed network.	- The internet is used to share over the web.
- It is more secure.	- It's less secure.

Use Microsoft Excel:

- ▶ Sorting info in alphabetical order
- ▶ Go to the toolbar.

▶ Click on Data.

▶ Then click on Sort.



- You can set formulas in cells to add(+), subtract(−), multiply (x), or divide (/):
- ▶ Click on the cell you want to set a formula.
- Type «=». This tells Excel you are creating a formula.



An hour before the Exam

تمكن من مراجعة منهجك في ساعة واحدة قبل الامتحان



Important Points

أهم النقاط في المحور الثاني

1 Personally Identifiable Information (PII) :

- Hackers can use someone's email address and password to send a virus to all the email addresses in your email accounts.
- To keep your PII safe using anti-virus software on all of your devices, don't sign
 up for a website if it asks for too much personal information and use different
 strong passwords.

2 Lost files :

 You should know how to protect the files that you create or store on a device from viruses, software problems, or human errors, such as dropping and breaking your laptop.

3 Phishiny scam:

 Another type encourages you to act quickly. When an attachment, or a file is opened, data-stealing software is installed on the person's computer, or the user is asked to enter sensitive information such as bank account details.

4 Multi-factor authentication :

- When you log into the game website on a different PC to your usual (permanent) PC:
 - a. You will be sent a text message to your mobile asking you to confirm that you are the person who owns the email address that you are logging in as.
 - b. The text message will include a number code which will give you access to your account and it is specified a short period of time and for one time only.

5 Scam websites :

- These websites can be phishing websites that present situations that try and get your information.
- · Types of scam websites :
 - a. Online shopping sites that never send you the correct items you bought.
 - Scareware websites that say your computer has a problem and you need to download something.
 - c. Sweepstakes scam that offers you a prize that never comes.

6 How scam websites operate:

- Next, they try and compromise your privacy by getting your personal information.
- Finally, they exploit the information they have gained about you in a bad way, or the possibility to hack your device to make themselves money.
- Each time it will look different, but all scam websites follow these basic principles.

7 Dissecting the URL:

- All URLs are made up of three main parts protocol → resource name → File path.
- You should understand the different parts of a URL so you can spot something that doesn't look right.

8 Copyright:

- · Copyright protects creator's work.
- · Copyright also protects: images, music, movies, games, computer software and websites.
- The international symbol for copyright is the letter C with a circle around it © .

9 What is Not covered by copyrights ?"

- · work in the public domain
- facts
- discoveries
- official documents such as laws
- creative works whose owner has been dead for 50 years

10 Use multiple sources and facts:

- It's a good decision to use multiple sources in your research.
- This helps make sure you know all the important facts about a topic المدينة مجا
- Following copyright rules and laws is also a good decision.

11 Search sources by keyword:

- Press (CTRL + F) on the keyboard
- · Enter the term in the search box.
- The keyword will be highlighted everywhere it appears on the page.

12 Using quotes:

- When you include a quote, you :
- state where the quote came from and why you are using it.
- can use sentences starters to share this information.
- Quotes support your ideas and arguments.





Important Definitions

أهم التعريفات في المحور الثاني

Words	Definition
Hackers	Hackers break into a computer system and steal personal information by using the internet.
Personal information	Personal information is called personally Identifiable information (PII) is like: name, address, date of birth, password.
Back up	Back up means make another copy of your work to keep it safe
Updates	The updates include changes that keep your data safe.
Hybrid back up	It is a safer was to back up and store files by using a data- storage device that you attach to your computer, such as a flash drive or an external hard drive.
Phishing	Phishing is sending a message via e-mail or social media applications that looks real, but isn't.
Smishing	Smishing is the same thing, but it is a text message instead of an e-mail.
Multi-Factor Identification (MFA)	MFA means you provide at least two ways of identifying yourself.
Creative commons	Sometimes the owner of a creative work gives permission to reuse his work at anytime and any place, so we can use it freely.
Creative commons reuse licenses	It means the creator has given permission for their work to bused anytime anywhere.
Public Domain	It includes all creative works not covered by copyright law.
Uniform Resource Locator (URL)	You can going to the site your want by typing the URL.
Online sources	Sources other than text in online articles and encyclopedias my include important information.
Paraphrasing	When you paraphrase, use your own words to explain the ideas of the writer.
Permalink	A highlighted word or a picture you click on to take you to another web location.

▶ Using reliable sources: You may be asked to use som

You may be asked to use some of the resources available online to :

answer a question.

identify solutions to a problem.

conduct study research related to a subject.

Know what a fact and an opinion is

Facts

- · Come from research and observation.
- They are statements that can be proven.
- They be debated and are true for everyone.

Opinions

- They are based on someone's views and experiences.
- They cannot be proven.
- They can be debated and are not true for everyone.



It often means that the facts are true.

Write notes for the first source.

Scan the next source for additional facts to add to your notes.

If two online sources have different information

- Double-check that both sites are reliable.
- Make sure the information is based on fact instead of opinion.

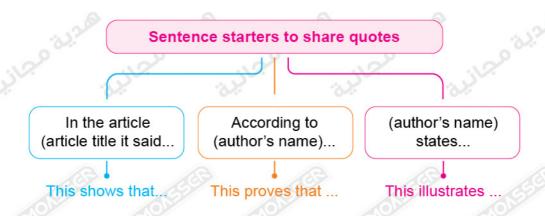
▶ Paraphrasing mean to :

Change

some of the vocabulary words. the order of the ideas.

the sentence structure.

By paraphrasing you are showing respect for the author's work.



Citing sources

RESULT

 At the end of a research report, you list your sources on a Works Cited page.

MHY

 Because websites change, some online sources include a permalink to use as the cited web address.

(6)

For a YouTube video

- ▶ Use the uploader as the author, the date, the video title followed by the word "video", the site name, and the URL.
- ▶ For Example RTV, 2019. Very Nile video. YouTube,

https://www.youtube.com/watch?v=yH5SVIgN_gY



PART 2



1	Dut[/] in front o	fthe correct cente	nce and (x) in front	of the wrong one
			store files, we trans	
	an external sto		store mes, we truis	irei olu illes to
		ıble is connects com	nuter to monitor	,
			nternet, you need a	aatewau (:
		and the second second property and the second second	t protects your com	
			ing operations easie	
		2(0)2/ 2(0)	determination mor	27 m 127
16	both at home a		6	(5)
		Egyptian Knowledg	e Phone.	ì
2	Choose the corr	ect answer from	a, b, c or d.	
	1. ab	breviation of Interr	net service provider.	
	a. ESP	b. ISP	c. ASP	d. PSI
	2. Suppose you w	ant to multiply a set	t of values containe	d in columns A, B,
	and C from row	(2). What is the corr	ect formula to do th	nis correctly?
	a. =A*B*C	b. =2A*2B*2C	c. =A2*B2*C2	d. =A2B2C2
	3. To store the wo	rd (wood) on the co	mputer, we need	bytes.
	a. 3	b . 4	c . 5	d. 6
	4. You must	if a problem	is not solved.	
	a. despair of so	lving the problem		
6	b. ask a teache	r or an adult	(2) (C) 1	(2) (d)
	c. the problem	should be further co	mplicated	
	d. causing a big	ger problem		
	5. Use the	program to v	vrite reports or your	CV.
	a. Paint		b. Word progra	m John Market
	c. Spreadsheet	s Excel	d. WhatsApp	
	6. is 0	a part of the interne	t network, made up	of webpages that
	people can nav	igate.		
	a. Web site	b. WWW	c. Com	d. ORG
	7. From the IoT [I	internet of Things) o	devices	, •
	a. digital refrige	erator	b. watch	
	c. old television	657	d. none of them	(5)
	8. are	e protected by copyi	right.	
	a. Image	b. Books	c. All of them	d. None of them

1 Choose the corr	ect answer from	na, b, c or d.	
1. When the Brow	ser running slow, į	you can	
a. Check Wi-Fi s	ignal	b. Restart comp	uter
c. Shutdown the computer		d. None of them	
2. The term	refers to de	vices connected to th	e Internet that
can be controlle	d remotely.		
 a. Digital finger 	print	b. Scanner	
c. Internet of Th	nings (IOT)	d. Digital Privac	y diffile
3. is c devices.	ı long connector th	nat transmits data or	power between
a. Ethernet cab	le	b. Local Area Ne	twork (LAN)
c. Open networ	k 🔊	d. Router	
The technology	that connects wir	eless mobile devices	over a short range
	rk called		
a. router	b. sharing	c. Bluetooth	d. scanner
5. To create folder	, right click then se	elect ther	n folder.
a. Open		c. Save	d. Print
		e information by scar	ning with the
mobile camera.			
a. QR		c. RQ	d. LAN
		lphabetical and orgai	
a. Excel	b. Word	c. PowerPoint	d. Paint
Dut[/] in front of	the correct cent	ence and (x) in front	of the wrong one
1. The cell B5 locat			or the wrong one.
	/02	nation to follow their le	essons online. []
		KB) is available for fre	
A 10 - 30.	tered on the site.	بازي	. 312
		ways of solving the p	problem of slow
5. Braille makes re	ading more difficu	ult for people of deter	mination. []
6. Identifying the	problem is the fina	l step in solving compu	uter problems. [_]
7. We need three b	oytes to store the	word "Cat" on the con	nputer. ()
8. The Network LA	N refers to the glo	bal network that con	nects computers
all over the worl	d		

1	Choose the correct	t answer from	a, b, c or d.		
	1. is the	smallest unit of a	data inside a comp	uter.	
	a. Giga Byte	b. Byte	c. Bit	d. Mega Byte	
	2. refer	s to a group of pe	ople or things rela	ted to each other	
	for a common pu	rpose.			
	a. Piracy		b. Networks		
	c. Gates		d. Orientation	permit.	
	3. can u				
3	virus to all the em	ail addresses in y		(5) C. F.	
	a. Hacker		b. Biologist		
	c. Computer engir		d. Teacher		
	4. cons				
	a. 12345678	b. A123A\$%2	c. abcdefg	d. abc123	
	5. Zoom is used to h		0		
	a. between two p	eople only	b. virtual	120	
	c. face to face		d. via Faceboo		
	6. they download someth		er nas a problem c	ina you need to	
		iiig.	b. Scareware s	ritos	
	a. Shopping sitesc. Sweepstakes		d. Scam webs		
	7. You must be care	ful whon viciting		iles (ile	
	a. well know web		b. new websit		
	[2] []	c. the trusted websites d. none of them 8. The international symbol for copyright is the letterit.			
	a. C with a circle a		b. R with a circ		
	c. I with a circle a		d. O with a circ		
	C. I With a circle a	Tourid	d. O With a circ	A A	
2	Put [√] in front of tl	ne correct sente	nce and $[x]$ in from	nt of the wrong one	
	1. The QR code is us		Aller 4.	ا آگون	
	2. The router connec	ts the computer	to the Internet via	Wi-Fi or Ethernet	
	cable.			0%	
	3. Your internet serv		_		
	4. A Creative Commo				
	·		d anytime and any		
	The public domain law.	i includes all crea	tive works not cov	erea by copyright	
	6. It's a good decision	on to use multiple	SOURCES IN HOUR PO	search (
	7. EKB website is on			jeuicii.	

1	Put[/]in front o	f the correct senter	ce and (x) in fron	t of the wrong one.
-%		network speed, the v		
	- 0	epresents the division	0-	Excel program. []
	3. Word enables v		•	()
	4. Facts cannot be	proven, but they ca	n be debated. The	y are not true for
	everyone.	663		<u> </u>
	5. When paraphro	ısing, you can reorde	r the ideas.	
The state of	6. Permalink is ab	breviation of permai	nent hyperlink.	
	7. Use antivirus so	oftware on all your de	evices and update	your devices
	regularly to pro	tect your files.		[]
	8. Limit the person	nal information you s	share online from	the ways of
	protecting your	personal data online	2.12.61	26 (168)
2	Choose the corr	ect answer from a	h cord	
·%.		sort information an		t Excel program
	through the			
	a. Data	b. Review	c. Insert	d. View
				e ideas of the writer
	(author).	663	CES C	13
		g b. Rewriting	c. Reading	d. Writing
16		om New to create a r	() // // -	(5) (B) (B)
	a. Video	b. File	c. Title	d. Folder
	4. The Bluetooth	speaker is an exampl	e of	
	a. Internet of T	hings	b. Cloud storag	je o
	c. Online shopp	0.0	d. E-commerce	300 11,200
	0	nnot be proven, but t		
	true for everyor	ne.	المالية في	.075
	a. Facts	b. Opinion	c. Reliable	d. Trusted
	6. pro	tects creators' work		
	a. Word progra	m b. Internet	c. Copyright	d. All websites
		ı provide at least	109	
	a. one	b. two	c. three	d. Five

1 Choose the corr	ect answer from	a, b, c or d.	
1. cor	nsidered strong pa	ssword	
a. 12345678	b. A123A\$%2	c. abcdefg	d. abc123
2. Each of the follo	wing is one of the	possible solutions t	o overcome the
slow running of	the application on	the device, except.	
a. Restart the d	evice	b. Verify the so	oftware update
		d. Replace hed	
		oft Excel program, y	you must write the
	n at the beginning		E CHILD
a. *	b.?	c. \$0	d. =
	est security stando own as		g personal informa-
a. E-commerce		b. Cloud storag	ge
c. Online shopp	ing	d. Digital priva	cy
5 . The phishing m	essage can be ider	ntified by	0.32
a. correct gram	mar	b. corrects spe	lling
c. spelling error		d. none of ther	
6. like	an HDD (Hard Dis	k Drive) but much F	aster
a. Router		b. External Ha	rd Drive
c. Cables		d. DVD	
		nects computers, ar	nd the people using
	round the world.	Me Cole	
a. Keyboard	ALL STREET	b. Internet	E Glins
c. Closed Netwo		d. Printer	
via	_	sts of devices linke	d to the internet
a. Wi-Fi	b. global	c. closed	d. public
2.0	12.61	12.6	2.61
2 Put (√) in front of			it of the wrong one.
	re labeled with lett		102
0		e to prepare charts	
research is not i		ne classroom when	conducting
4. Mbps abbreviat			l 1
· ·	_	uter device and the	router device
using Ethernet		ater acvice and the	Touter device
		k, open and closed	network.
		u mustn't mention t	
the writers.			